#### DOCUMENT RESUME

VT 012 502 ED 047 130

AUTHOR Lucas, Stephen R.: Weber, Larry J.

The Improvement of Evaluation Procedures of Teachers TITLE

of Distribtuion and Marketing. A Research Report.

Virginia Polytechnic Inst. and State Univ., INSTITUTION

Blacksburg, Dept. of Education.

Sears-Roehuck Foundation, Skokie, Ill.; Virginia State Dept. of Education, Pichmond. SPONS AGENCY

PUB DATE 70 NOTE 780.

EDRS PRICE EDRS Price MF-\$0.65 HC-\$3.29

DESCRIPTORS Conferences, \*Distributive Education, \*Distributive

Education Teachers, Fducational Improvement,

\*Educational Testing, \*Fvaluation Methods, Evaluation Techniques, Secondary Schools, \*Student

Evaluation, Test Construction, Tests

#### ABSTRACT

The purpose of this study was to improve the evaluation proficiencies of high school distributive education teachers in Virginia. A special conference for selected high school distributive education teachers provided instruction in the preparation of evaluation units and actual construction of such units in selected areas. An evaluation of the conference was based on: (1) pretest and posttest measurements of cognitive abilities in principles of evaluation, (2) the construction of evaluation units, and (3) a followup of the participants' implementation of these skills in the actual school setting. Results of the conference were favorable for all three areas. It was therefore recommended that conferences of this type be viewed as worthwhile ventures for improving evaluation abilities of teachers in their respective fields. (Author/JS)



 $(c\hat{i})$ 

THE IMPROVEMENT OF EVALUATION
PROCEDURES OF TEACHERS OF
DISTRIBUTION AND MARKETING

A RESEARCH REPORT

BY
DR. STEPHEN R. LUCAS
AND
DR. LARRY J. WEBER



DEPARTMENT OF EDUCATION
COLLEGE OF ARTS AND SCIENCES
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
BLACKSBURG, VIRGINIA
1970

SUPPORTED BY
THE SEARS, ROEBUCK FOUNDATION
AND THE
STATE DEPARTMENT OF EDUCATION,
DISTRIBUTIVE EDUCATION SERVICE

THE IMPROVEMENT OF EVALUATION PROCEDULES OF TEACHERS OF DISTRIBUTION AND MARKETING

A RESEARCH REPORT

BY DR. STEPHEN R. LUCAS AND DR. LARRY J. WEBER



DEPARTMENT OF EDUCATION
COLLEGE OF ARTS AND SCIENCES
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY BLACKSBURG, VIRGINIA 1970

> SUPPORTED BY THE SEARS, HOEBUCK FOUNDATION AND THE STATE DEPARTMENT OF EDUCATION, DISTRIBUTIVE EDUCATION SERVICE

U. B. DEPARTMENT OF HEALTH, EDUCATION B WILLFARE OFFICE OF EDUCATION THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECENTO FROM THE PERSON OR DISGANZATION ORIGINATING IT POINTS OF VIEW OR OPHIONS BYATED DO NOT NECES SANLY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

#### PREFACE

This publication is a report of a project conducted to improve evaluation competencies of secondary distributive education teachers. Included is a portrayal of methodology, instructional procedures, evaluation analyses of the objectives for the project, and a compilation of evaluation units that participants in the project at Virginia Polytechnic Institute and State University developed for high school distributive education programs. The project was conducted from January, 1969 to Jure, 1970, under the sponsorship of the Sears, Roebuck Foundation, the Virginia State Department of Education, and Virginia Polytechnic Institute and State University and was directed by Dr Stephen R. Lucas and Dr. Larry J. Weber. Participants in the project were high school distributive education teachers throughout Virginia who volunteered their time in this research effort.

It is our hope that the contents of this report will be of value to high school teachers of distributive education and others concerned with vocational education. We wish to express our thanks to the sponsoring agencies and the workshop participants. A list of participants is given in the appendix.

L. J. Weber S. R. Lucas



## TABLE OF CONTENTS

		Page
PREFACE		. ii
Chapter 1.	INTRODUCTION	. 1
4.	INTRODUCTION	
	PURPOSE	. 1
	SUMMARY	. 2
11.	PROCEDURE	. 3
	CONFERENCE PROGRAM	. 6
	SCHEDULE OF THE CONFERENCE	. 6
111.	EVALUATION OF CONFERENCE OUTCOMES	, 8
	Analysis of Test Results: Criterion 1	. 8
	Analysis of Practical Application of Evaluation Abilities: Criterion 2	. 13
	Evaluation units	iii
IV.	EVALUATION UNITS	. 12
	Topic: Visual Merchandising	. 15
	Instructional Objectives	. 15
	Selected Content	. 17
	Table of Specifications	. 18 . 19
	all work and a constraint and a constrai	. 10
	Topic: Merchandise Information -	
	Standards, Grades, Labels	. 21
	Instructional Objectives	. 21
	Selected Content	. 23
	Table of Specifications	. 24
	Illustrative Test Items	. 25
	Topic: Operation of Our Economic System .	. 26
	Instructional Objectives	. 26
	Selected Content	. 28
	Table of Specifications	. 29
	Illustrative Test Items	. 30



## TABLE OF CONTENTS (continued)

																							Page
	Top	4.0		R.	. <b>.</b> .	. 4	1 .	h A	ve	rŧ	is	in	0										32
	LOP	Tn.	sti					, -	ÓΉ	ie	ct	10	0 6	•	•								32
		Se	201	e u	 	6	11 A	•	n+	, -			-		•	•	•	•					34
		Tal	16 (	ایان	-u	0	011	- 4	91		:.	•	:	•	•	•	•	•	•	•	•	•	35
		Tal	p16	3 (	10	5)	pe (	ᄗ	11	CB	ŢΙ	on	В	•	•	•	•	•	•	•	•	•	36
		11	lus	st:	rai	ti۱	ve	T	es	t	Ιt	em	8	•	•	•	•	•	•	•	•	•	30
	Tor	1c	•	S	to	c k!	ke	eр	in	g	on	t	he	S	e 1	11	ng	F	10	or	٠,		39
	. 0,	Ťn	st:	rij.	n # ·	in	n a	ï	Oh	i e	ct	12	AA										39
		ŝ	le	rŧ.	o d	č	ດກ	Ŧ.	nt	J -					•								41
		Ta																					43
		11	lus	5 L	r a	נזי	ve	1	es	τ	11	em	Þ	•	•	•	•	•	•	•	•	•	**
	Top	ic	:	J	оb	1	nt	er	vi	ew	,												46
		Ťn	st:	rin	ct	١ō	na	ï	Ob	ile	ct	iv	es										46
		ç.	le	~ t	å	ř	 	ŧ.	nt		٠.		-		•	:							48
			ь1																				49
																							50
		11	10:	S T	ra	t 1	ve	1	es	τ	11	em	В	•	•	,	•	•	•	•	•	•	00
	Tor	ni c		R	at.	a i	1	Ar	it	hm	e t	10											52
	. 0,		st:																				52
		60	le	. u		**		•	n+	,,,,	٠,				•	•	•	•	•	:	:	-	54
		Se.	10	c t	ea	۲	OII	-4	44		٠.	•	:	•	•	•	•	•	•	•	•	٠	55
			b1																				56
		11	lu	st	ra	t 1	ve	1	.68	τ	14	en	15	•	•	•	•	•	•	•	•	•	20
v. sumon	ARY																	•			•		59
APPENDIX A																				•	•		61
APPENDIX B																•						•	72
BIBLIOGRAPHY																							73



#### CHAPTER I

#### INTRODUCTION

Measurement experts have indicated that the most important factor which characterizes the kinds of learning that occur in schools is the system of evaluation that is in operation. They believe that students tend to learn the educational matter on which they are tested either formally or informally. It would appear advisable for teachers to utilize this information and use the testing situation as a means for implementing learning in the classroom.

In recent years a group of educational experts has become aware of the importance of evaluation as a means of facilitating learning. Research has been undertaken to optimally utilize testing in schools. Unfortunately, the research has not filtered down to classroom teachers and they have not utilized measurement findings to implement learning in the classroom.

One of the major faults of teacher-made tests is that the tests serve to measure that which the teacher does not consider very important but which is convenient to measure. For example, measurement experts estimate that three-fourths of the questions on examinations require students to merely recall material that they have been "taught." The problem then is one of enriching the learning situation by encouraging the teacher to challenge the student with test questions that measure higher mental processes.

#### PURPOSE

Educational psychologists believe that the types of evaluational methods used by teachers are a determining factor in the amount and type of learning that occurs in the classroom. The purpose of this project was to utilize recent findings in measurement and evaluation theory to facilitate learning. One of the most promising research efforts was the development of a taxonomy of educational objectives in which the cognitive learning outcomes of instruction were categorized into six major headings: knowledge, comprehension, application, analysis, synthesis, and evaluation. (2) Purportedly, all cognitive educational goals can be classified under one of the six headings and test items can be developed to measure whether or not the goals at a given level have been achieved.

Students of educational measurement have incorporated Bloom's system into their measurement philosophy and methodology. Sanders, for example, has used the taxonomy of Bloom, et al, as a basis for developing a classification system of

ERIC

test questions. (7) One source that serves to reinforce the spirit of this study states, "Utilization of the taxonomy, as well as other systems, is meaningful to the educative process in terms of the power of educational objectives stated behaviorally. The process may force the educator to a level of specificity concerning what is being done in the classroom. When one thinks about behavioral objectives and the use of the taxonomies, he becomes more specific in his goal statement, his methodology, and his evaluation. Further, he begins to develop a language with specific definitions which provides a vehicle for communication on curriculum design, sequencing, integration of experiences, etc., in a manner which transcends individual grades and teachers. The implications for curriculum building and innovation are great, and the development of more analytic behavior in the educator is very possible." (9:122)

Bloom also provides support for the intent of this study when he states, "The ability to understand instruction may be defined as the ability of the learner to understand the nature of the task he is to learn and the procedures he is to follow in the learning of the task." (1)

#### SUMMARY

The overall purpose of this study was to improve the teaching efficacy of distributive education teachers through the development of evaluation competencies. Specifically, the objectives for the immediate study were to develop in the teacher the ability to:

- 1. Identify the cognitive level of test questions.
- Construct test questions at all the cognitive levels.
- Demonstrate expertise in the principles of testing.
- Implement skills in measurement and evaluation when preparing classroom tests.



#### CHAPTER II

#### PROCEDURE

Initially, the project directors intended to divide the participants into two groups. The experimental group would be given instruction in evaluation techniques. The control group would not receive such instruction. Controls were incorporated in the original design so that equality of groups would be assured and the findings would be defensible. Specifically, the intent was to follow these procedures:

- 1.  $A_{\rm R}$  invitation to all high school DE teachers to participate in an evaluation conference.
- The random division of the teachers into experimental and control groups of 30 each.
- The instruction of the experimental group in evaluational techniques.
- Post-conference comparisons of the evaluation skills of the experimental and control groups.

Unfortunately, the number of DE teachers in the state of Virginia who volunteered was so small that the experimenters were unable to obtain the desired 60 participants in the conference. Due to the unavailability of the desired number of participants, it was necessary to redesign the experimental portion of the study. After the initial contact and repeated efforts to solicit participants in the conference, the number of individuals who obtained released time to participate in the conference was 23. Further attrition reduced the number to 15. It was impossible to divide such a small number of DE teachers into experimental and control groups; therefore, it was necessary to alter the design as follows:

- All applicants were invited to participate in the evaluation conference.
- The 15 who actually participated were examined for evaluation skills prio. to the conference.
- Upon completion of the conference they were subsequently examined and then post-conference evaluation skills were campared to their pre-conference skills and differences were noted.

The design was, in fact, a pre-test - post-test design using the same subjects and measuring gains. The authors were interested in the following variables in the study:



- The cognitive ability of the participants in principles of evaluation.
- The degree to which the participants implemented their cognitive ability in the construction of classroom tests.

Prior to their arrival, each participant was asked to submit a copy of an examination administered to his students. After their arrival and prior to instruction, participants were administered a pre-test covering material on testing and evaluation. (See Appendix A for pre-test.)

The pre-test performance provided evidence of the participants' ability in measurement and evaluation. The copies of their classroom tests were evidence of their applied ability in test construction. Subsequent information of the same type was gathered from the participants so that comparisons could be made between pre-conference and post-conference performance.

Post-conference data were gathered at two points after the conference. Data on the cognitive ability of participants were collected by the administration of a post-test on the last day of the conference. Data on the implementation of the cognitive ability in the construction of classroom tests were collected in the form of a copy of the DE teachers' first six-week tests given after the conference. Additional data, in the form of a second post-test, were to be collected at the end of the first semester of the academic year. Finally, copies of the DE teachers' first semester examinations were to be collected.

The following four comparisons were planned:

- The participants' pre-conference status with the post-conference status for information about short-term cognitive gains.
- Pre-conference and post-conference checks of examinations constructed by the participants for indication of short-term gains in test-constructing ability.
- The participants' pre-conference status with the post-conference status for information about long-term cognitive gains.
- Pre-conference and post-conference checks of examinations constructed by the participants for indication of long-term gains in test-constructing ability.

Treatment of the data obtained from participants was necessarily dependent upon its nature and upon the extent of



the conferees' participation. Because some of the participants failed to supply sufficient data, the four comparative studies outlined above were not possible. The adjustments that were made will be explained in the section reporting results.

The data in this study concerned the cognitive ability and the application skill of each participant. Cognitive ability was measured by a test of measurement skills administered prior to the conference and after the conference (see Appendix A for a copy of the examination). Evidence of the application skill was gathered by two methods. First, comparisons of participants' examinations constructed prior to the conference and after the conference to see if differences existed in test-constructing ability. Second, evaluation units were prepared by participants in an interest area of their choice.

Pre- and post-conference test scores of cognitive abilities, as measured by the tests administered to participants, were analyzed by t-tests for the difference between means at the time of the pre- and post-testing.

Evidence of the application skill was obtained by a comparison of the participants' examination items prepared prior to the conference with those examination items prepared after the conference. The items were paired and rated by a measurement expert and a subject-matter expert. The paired comparisons method of rating was used where two items were presented to each of the two experts who, in turn, judged which was the better item. The judgments were made independently by each rater and were made "in the blind." That is, the rater did not know which item was a pre-conference item or which was a post-conference item. The results were analyzed for statistical differences using the chi-square method. The items, both pre- and post-test, were selected using a table of random numbers. Items in the form of matching questions were not included in the comparsions because of their inappropriateness for comparisons on a one-to-one basis with other types of questions.

Other evidence of application skill was descriptive in nature and consisted of evaluation units in distributive education that participants developed during the conference. Included in each unit were educational objectives, stated behaviorally; a table of specifications; a blueprint of an evaluation plan; and test questions which purported to measure the stated objectives. Participants operated in two-member teams and units were developed for the following topics:

- 1. Stockkeeping on the selling floor
- 2. Retail arithmetic
- 3. Visual merchandising

ERIC Provided by ERIC

- 4. Retail advertising
- 5. Merchandise information
- Job interview
- 7. Operation of our economic system

The material should be of value for high school teachers of distributive education as illustrations for the preparation of DE units or as an initial framework from which more complex units can be developed.

#### CONFERENCE PROGRAM

The evaluation conference, The Improvement of Evaluation Procedures of Teachers of Distribution and Marketing, was conducted in a one-week session during August, 1969, and consisted of didactic presentations and participation sessions. In general, subject-matter presentations were made during the morning sessions and workshops were conducted in the afternoons. The format was designed to obtain maximum participation from the conferees. A detailed schedule of the conference follows.

#### SCHEDULE OF THE CONFERENCE

### Eunday

Purpose of the conference Overview of the conference Relationship of objectices to evaluation Organization of teat... Selection of topical outlines as source material Pre-session test Purpose of the conference 7:00 p.m.

End of session 9:30 p.b.

#### Monday

Introduction to educational objectives
Issuance of reference books by Bloom and Sanders
The taxonomies of educational objectives 8:30 a.m.

Lunch Noon

Writing objectives 1:30 p.m. Critique of work

End of session 4:30 p.m.

### Tuesday

8:30 a.m. Feedback on the process of writing objectives Relationship of objectives to subject content Table of specifications - introduction

Noon Lunck

1:30 p.m. Revision of prior objectives
Construction of subject content outline
Preparation of table of specifications

4:30 p.m. End of session

## Wednesday

8:30 a.m. Construction of test items A taxonomy of questions

Noon Lunch

1:30 p.m. Construction of test items with reference to table of specifications and objectives

4:30 p.m. End of session

## Thursday

8:30 a.m. Feedback on the process of writing test items according to objectives and table of specifications

#### Noon Lunch

1:30 p.m. Group evaluation of a job interview (video-tape presentation)
Discussion of differences in observations
Completion of evaluation units

4:30 p.m. End of session

## Friday

8:30 a.m. Critique of evaluation units
Related research for development of evaluation
units
Evaluation of attitudinal instructional outcomes
Conference critique
Administration of post-conference test

Noon Adjournment.

#### CHAPTER III

#### EVALUATION OF CONFERENCE OUTCOMES

The product of any program of instruction cannot be labeled successful unless there is evidence that favorable changes occurred.

In this chapter, the authors will present evidence of the success of the conference. The following criteria were used in the evaluation procedure:

- The degree of change by the participants in cognitive ability regarding principles of evaluation.
- The degree to which the participants put into practical use the evaluation principles that were presented during the conference.

Evidence for the first criterion was change, as measured by a test of evaluation skills between pre- and post-testing. Evidence for the second criterion was drawn from the evaluation units as presented in Chapter IV and from the examinations that participants constructed and administered during the academic year following the workshop.

#### Analysis of Test Results: Criterion 1

One of the criteria used to judge the success of the conference was the change in the participants' cognitive ability in principles of evaluation. If the program was to be called successful it would appear that some gain in cognitive ability in evaluation should be demonstrated.

On the first night of the conference, participants were administered a 60-item test on testing and evaluation (see Appendix A for a copy of the examination). The items were drawn from several test instruments that had desirable features for the purposes of this study. Upon completion of the conference the participants were administered the same test, thus a pre- and post-test design was utilized in evaluating this phase of the project.

Data on the 15 participants were analyzed as shown in Table 1. A t-test was computed and the result was that a significant difference existed between pre- and post-testing. The level of probability was p  $\langle .01 \rangle$ . The authors accepted the above findings as evidence that the cognitive knowledge of participants was improved as a result of their participation in the conference.



A second analysis, similar to the one above, was attempted to determine whether long-term gain resulted from the conference. At the end of the first semester after the participants had returned to their schools, additional tests were mailed and participants were requested to complete them and to return them by mail. Unfortunately, the return on the request was so low that the authors did not feel justified in analyzing them. The authors made concerted efforts in the form of follow-up letters, phone calls and personal contacts but the returns were still insufficient for forther analysis. Therefore, alteration of that phase of the initial plan had to be made and the authors were not able to carry out all the analyses that were planned at the outset.

#### TABLE 1

# DATA ON THE TEST OF SIGNIFICANCE FOR CHANGE IN COGNITIVE ABILIT!

Pre- and Post-Test scores)	6.13
Sp (Standard Error of the Mean Difference)	. 73
t ratio	8.40
DF (Degrees of Freedom)	14
P - <.01 (Significant)	

# Analysis of Practical Application of Evaluation Abilities:

Tests constructed. --One of the things that the authors wanted to determine was the extent to which DE teacher-coordinators would implement their newly-acquired skills in preparing the classroom tests that they would administer to their students. Accordingly, participants were asked to send copies of these tests to the authors.

Each participant was requested to submit a copy of a major examination that he had administered in the school year prior to his participation in the conference. He was also asked to submit a copy of the first major examination that he administered to his students during the school year after the conference. In order to guard against bias or confounding that could result from the participants knowing that their examinations were going to be compared, examinations were requested without forewarning and without knowledge by the participants as to which test would be requested. It was infeasible to analyze all items on all pre- and post-tests. Therefore, items were selected randomly from the pre- and post-tests for comparison with one another. From the tests that the participants submitted, test items were selected as follows:

- 1. four items were selected from each test
- matching items were excluded from both preand post-tests.

Items were typed on 3 x 5 cards and paired in a random fashion with one item from a pre-test and one item fir 1 a post-test. The pairing was done by a research secretary without the assistance of the researchers. Also, the research secretary was directed to design a code by which she could determine which were pre-test items and which were post-test items. A total of 47 pairs of items were analyzed by the researchers. The task of the researchers was to identify which one of the pair of items was the better test item and to so note independently their ratings on a rating sheet.

Dr. Lucas viewed the questions according to the criterion of one who was expert in the field of distributive education. Dr. Weber viewed the questions according to the criterion of one knowledgeable in the area of educational evaluation. Items were dichotomized as to which was the better. After both raters had judged the items, the results were compared.

Of the 47 items selected by each rater as the better, the two raters agreed on 38 for an inter-rater agreement of 81%. This was viewed by the researchers as being high. On the remaining nine pairs of items, consensus was reached after



discussion between the raters. As indicated earlier, all rating was done "in-the-blind" with no knowledge by a rater of the other rater's choices or of which item in a pair came from a pre-conference test or a post-conference test.

After rating the items, the research secretary identified the 47 better items as to whether they were pre-test items or post-test items. Of the 47 better items, 19 were from tests that participants had constructed prior to their participation in the conference and 28 were from tests constructed after their conference participation. A chi square test was performed to check for significance. (8:187)

$$x^2 = sum \frac{(f_0 - f_t)^2}{f_t}$$

A chi square value of 5.16 was obtained. This value was significant at the .05 level of probability. The researchers viewed this finding as evidence that the items from post-conference teacher-made tests were better than those from tests that had been constructed before the conference.

Evaluation units. -- Evidence of conference success for criterion 2 was also indicated by construction of evaluation units for topics in distributive education by conference participants. Because of its unique nature this phase of the evaluation is presented as a separate section in Chapter IV, Evaluation Units.

It was the opinion of the researchers that work produced by the confereer was appropriate to the instructional goals of the conference and, in a subjective view, the units produced were outstanding.

#### CHAPTER IV

## EVALUATION UNITS

learning has been defined as a change in behavior resulting from experience. Emphasis in the foregoing definition should be placed on the term "behavior" because it is from students' behavior that learning is inferred. The science of education has not advanced to the point where direct evidence of student learning can be obtained. At present there is no chemical test that can reliably measure learning, no electrical device that can adequately detect the atomic or molecular changes that occur when individuals learn, no "dip stick" to poke down pupils' ears to tell how full they are of a particular kind of academia. Evidence of learning is obtained from students' overt perfermances and it is from this evidence that teachers determine whether or not satisfactory progress has been attained.

If it is from observation of students that evidence of success or failure is gathered, it would appear reasonable that the goals of educational programs should be stated in student behavioral terminology so that teachers would know precisely what to look for when they evaluate their students. It has been suggested that educational objectives be stated in operational terminology in such specific language that they are explicitly apparent to both teacher and pupils. Further, the precision of the statement of instructional goals should be so exact that any teacher in a given subject area should be able to readily determine whether or not pupils have met the criteria stated in the goal. The statement of instructional objectives in behavioral terms is the initial step in the development of an evaluation unit.

Once the objectives of an evaluation unit have been determined, the next step is the preparation of content material. This material is an integral and indispensable part of the evaluation unit and is primarily the responsibility of teachers and curriculum specialists.

The third step in evaluating pupil progress is the development of a table of specifications. The table of specifications is a two-way outline which relates educational objectives to course content. It is a blueprint of the evaluation scheme and assists in better assessing pupil progress in several ways. A table of specifications provides a visual plan of a test. It allows the teacher to allocate objectives and content in a more equitable manner. It prevents an overemphasis on a given topic of an instructional program or on a given type of educational objective. An examination of the tables of specifications in this report (see evaluation units included in this chapter) reveals that the evaluation units include a broad



spectrum of objectives and course content so that a kind of "shot-gun" pattern is obtained.

The final phase of an evaluation unit is the construction of test items to be included in an examination. Test items should be constructed in such a manner that they measure, as closely as possible, the educational objectives that were developed in the initial phase of the evaluation unit. In practice, the construction of test items is facilitated by the educational objectives. Frequently, objectives directly suggest test items. Test items should be constructed in accordance with the plan stated in the table of specifications to assure the evaluational intent of the teacher.

A treatise on the construction of test items is beyond the scope of this report. A discussion of some of the precautions which should be observed in the construction of test items is reported in a paper by the authors entitled, "Fool-proofing Test Questions." (6) In general, test items which measure course objectives should be constructed. Whether they are of the "subjective" or "objective" type makes little difference. Test experts have indicated there is no inherent relationship between the type of test question asked and the level of mental ability being examined Thus, the use of subjective questions will not necessarily guarantee that a highlevel ability is being evaluated. Regardless of the manner in which a test question is phrased, i.e., essay, true/false, multiple-choice, an examiner has the obligation to assure that the answers are scored objectively. In this respect, it can be said that all tests should be objective in nature.

In the following sections illustrative evaluation units appropriate for topics in a high school distributive education class are presented. Included are units in "Stockkeeping on the Selling Floor," "Retail Arithmetic," "Visual Merchandising," "Retail Advertising," "Merchandise Information," "Job Interview," and "Operation of our Economic System." The material was constructed by the participants of the Evaluation Conference conducted at Virginia Polytechnic Listitute during August, 1969. Included in each evaluation unit is a list of instructional objectives, a brief content outline, a table of specifications, and sample test items. The objectives are stated in operational terminology in terms of student behavior. The table of specifications is constructed in two dimensions to help assure adequate sampling of course objectives and content. Instructional objective headings are listed across the top of the table. Efforts were made to assure that objectives from all three domains, i.e., cognitive, affective, psychomotor, were included. Subject content headings are listed vertically at the left of the table. Sample test items follow the table of specifications, The test items are related to the table of specifications by means of a numerical and alphabetical code.

This coding helps assure continuity in the evaluation plan and provides integration of the unit. The questions included in the test section of the evaluation unit are sample items. The number of questions in a sample test does not necessarily correspond to the number of questions listed in the table of specifications.

The various teams of conference participants who constructed the evaluation units are identified on the first page of the particular evaluation unit being viewed. A complete list of participants is included in Appendix B.

## Topic: Visual Merchandising

By: Elizabeth Moores and L. P. Moss, III Chatham H. S. Thomas Edison H. S. Pittsylvania County Fairfax County

#### Instructional Objectives

- The student knows terms, techniques, apportunities, and general principles in visual merchandising whom he is able to:
  - 1.1 Define the specific terms : isual merchandising, display, media, spectrum traffic, return
  - 1.2 List jobs available in visual merchandising and tell education needed for each.
  - Identify the colors in the color wheel as primary, secondary, and tertiary.
  - List the three elements of visual merchandising.
  - 1.5 Define the terms: hue, shade, tint, value, and intensity.
- 2. The student understands general facts and principles about visual merchandising when he is able to:
  - Identify three principles of display design.
  - 2.2 Predict current practices in visual merchandising that will endure.
  - Recognize the effects of monotone displays.
  - Forecast or predict traffic pattern; within the store. Predict the reaction of customers to selected displays.
  - 2.8 Recognize the effect colors have on people.
  - 2.7 Categorize forma! and informal balance, zigzag, and

  - continental styles from diagrams.

    Recognize displays that show related items.

    Recognize the importance of symbolic props 1.e., 2.9
  - rabbits for Easter.
    2.10 Distinguish the colors preferred by customers of different socio-economic classes.
- The student applies knowledge and skills in visual merchandising when he is able to:
  - 3.1 Prepare a color wheel.
  - Select colors appropriate to a specific holiday.

  - Use geometric designs in a (shadow box, ledge) display i.e., circles, rectangles, triangles, squares.
    Design a monochromatic display using a specific product and color.
  - Compile a list of props for a Christmas display.
  - 3.6 Compile a list of color schemes reflecting store images.



- 3.7 Design displays using complementary colors.3.8 Design traffic patterns for the store.
- 4. The student analyzes and evaluates the elements of display when he is able to:

  - 4.1 Evaluate specific displays in competing stores.
    4.2 Determine the effectiveness of hang tags, show cards, and price tags being exhibited with the merchandise in displays.
  - Assess the results of a given window display. Determine the effect of display lighting on sales.
- 5. The student demonstrates skills in visual merchandising when he is able to:
  - Construct a display using colors associated with Thanksgiving. 5.1
  - 5.2 Make a monochromatic display.
  - 5.3
  - Create overhead lighting effects
    Make secondary colors from primary colors using
    tempera paints. 5.4
- 6. The student will have proper attitudes about visual merchandising when he:

  - 6.1 Collects references regarding display ideas.6.2 Realizes the implications of display on sales.

#### Selected Content

- I. Display As a Form of Sales Promotion

  - A. Terms
    B. Styles
    C. Principles
- II. Elements of Visual Merchandising

  - A. Product B. Space C. Traffic
- III. Opportunities in Visual Merchandising

  - A. Jobs available
    B. Education required
    C. Trends
- IV. Purposes of Visual Merchandising

  - A. Attract attentionB. Create company imageC. Sell merchandise
- V. Tools of Visual Merchandising

  - A. Props
    B. Color
    C. Lighting



	-			Table of Specifications	fications	j		}
		1			Objectives		;	
		Content 1.	nowledge	1. 3. 4. Knowledge Understanding Application Analysis	3. Application	4. Analysis	5. Skills	6. Attitudes
	₹	Maplay as a Form of Sales Promotion	ĸo.		·	ч		
	<b>e</b>	Klements of Visual Merchan- dising	ო	-		Ħ		
	ပ်	Opportunities in Visual Merchan- dising	N					
.8	ė.	Purposes of Visual Merchan- dising	ო		ч	ď		
	M.	Tools of Visual Merchandising	ю	4	N			
	1	Total Questions	18	4	e e	e e		
		Percent of Quastions 64"	64°	14%	311	11%		

#### Illustrative Test Items

```
Table of
Specifications
Reference
             1-5. Define:
  1A
                    (a) Media
(b) Display
                    (c) Merchandining
(d) Visual Merchandising
                    (e) Sales Promotion
             6-8. The three elements in Visual Merchandising are
  18
            9-10. List an entry job and a higher level job in
  10
                    Visual Merchandising.
           11-13. List the three purposes of Visual Merchandising.
  10
           14-18. Match the following terms at the left with their
   1E
                   definitions at the right.
                                         (a) degree of lightness or darkness
                        1. hue
                                         (b) strength of a color
(c) obtained by adding white
(d) obtained by adding black
                       2. shade
                       3. tint
                       4. value
                                         (e) another name for color
                       5, intensity
                                         (f) complementary color
               19. The color red is:
   1E
                                         (c) tertiary(d) none of the above
                    (a) primary (b) secondary
```

20. Secondary colors include:

(c) a stack of cans

newspaper

(a) orange(b) black(c) white

1E

3E

5B

(a) an umbrella over a picnic table(b) a mannequin of a woman

21. The best prop to use in a grocery store window  $6' \times 8' \times 2'$  would be:

(d) a blown-up picture of the week's ads from the

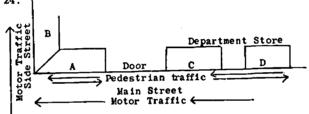
dary, and tertiary colors applicable to a spring showing of ladies' shoes.

22. Draw a color wheel using only the primary, secon-

23. Draw a floor plan of a drug store, indicating fixtures (counters), and sketch the probable traffic pattern. Label departments.

24. 44

3D



Using the diagram above, which window would generally receive the most emphasis for displays?

- (a) Window A (b) Window B
- (c) Window C (d) Window D
- 25. Using the diagram above, which display is the least likely item to be included in the window? 4D
  - (a) Furs in Window A
    (b) Pots and pans in Window D
    (c) Sportswear in Window C
    (d) Furniture in Window B
- 26-29. From pictures supplied, identify the display design in each. 2E
  - 26. Formal balance 27. Informal balance 28. Zigzag
  - 29. Continental

## Topic: Merchandise Information - Standards, Grades, Labels

By: Alexander Walsh Donald Williams and Brentsville Dist. H. S. Holston H. S. Prince William County Washington County

## Instructional Objectives

- The student knows terms and general principles about standards, grades, and labels when he is able to:

  - 1.1 Define standard, grade, and label.1.2 Identify customer preferences for selected grades.
  - 1.3 List organizations which make or recommend regulations about standards, grades, and labels.
  - Define adulteration and misbranding.
  - 1.5 Define fancy.
- 2. The student understands general facts and principles about protective measures, when he is able to:
  - 2.1 Distinguish among the four areas of merchandise information protection.
  - 2.2 Differentiate between mandatory and voluntary protective measures.
  - 2.3 Distinguish between types of grades.

  - 2.4 Explain why meat is graded.
    2.5 Explain the process of product testing by consumer magazines
  - 2.6 Differentiate between public and private testing agencies.2.7 Recognize examples of adulteration and misbranding.
- The student applies and synthesizes information about standards, grades, and labels when he is able to:
  - 3.1 Predict the parties who will derive benefits from protective action.
  - 3.2 Role play a situation about the Pure Food, Drug, and Cosmetic Act, with one student representing a business.
  - 3.3 Make sales demonstrations using labels and information
  - found on labels as selling points.

    3.4 Develop a set of rules for the grading of pork.
  - 3.5 Make a report on legislation regarding the labeling of merchandise.
  - Construct a bulletin board which illustrates the difference between grade and descriptive labeling.
- The student will analyze and evaluate information about standards, grade, and labels when he is able to:

- 4.1 Uncover reasons for the establishment of four areas of protection, i.e. standardization, simplification, grading and labeling.
- Uncover events which led to the establishment of the
- Pure Food, Drug, and Cosmetic Act.

  Judge fellow students' criteria for grading merchandisc. 4.3
- Select a label on a food, drug, or cosmetic container and analyze the information according to selected criteria.
- The student demonstrates skill and ability in the use of merchandise information when he is able to:
  - 5.1 Use standard, grade, and label information in selling.5.2 Locate information about standards, grades and labels.
- The student displays a favorable attitude toward the use of merchandise information when he:
  - Selects products that have received acceptable recommendations by regulating agencies.
  - 6.2 Explains the value of standards, grades and labels to others.
  - Suggests to the buyer that he purchase items that have met the standards, grades, and labels requirements. Reads publications showing changes in requirements.

  - 6.5 Encourages management to keep employees informed on standards.

#### Selected Content

- I. Protective Measures

  - Distinction between terms Who are interested in grades Legislation В.
  - Four areas in which protection operates D.
- II. How Protective Measures Operate
  - A. Types of standardsB. Types of gradesC. Types of labeling
- III. Agencies
  - A. Magazines and newspapers
  - Testing agencies
    Government c.
- IV. Applying Information at the Point of Sale
  - Facts in analyzing labels Information on labels Labels on products
  - В.
- V. Further Facts about Labeling

  - The case for grade labeling The case for descriptive labeling
- VI. Summary

			Table of Specifications	tications			
l				Objectives.			
	Content	l. Knowledge	2. 3. 4. Understanding Application Analysis	3. Application	4. Analysis	5. Skills	6. Attitudes
	Standards	~	-		8	! !	
	Grades	-	81	<b>ત</b>	ч		
. •	Labels	н		1	н		
	Testing Organizations		81				
.:	Protective Measures		81	8	ო		
. •	Mandatory Standards		<b>d</b>	1			
	Voluntary Standards		r		4		
	Projects			ю			
. •	Invelved	4	٦	н	1		
. •	Protective Organizations			1			
.:	Terms	1	н				1
1	Total Questions	9	ı,	10	6		ı
	Percent of Questions	ns 16%	31%	28%	25%		

ERIC

#### Illustrative Test Items

#### Table of Specifications Reference

- A label is best defined as something that:
  - (a)
  - identifies a product by the producer tells the degree in which standards are met (p)
  - provides the basis for grading
  - identifies the product as to its content
- **2**G 2. A voluntary protective measure is to a businessman
  - (a) (b) as a hunting license is to a rabbit as a college education is to a student

  - as carbon dioxide is to a plant
  - as ink is to a pen
- 2K 3. Which of the following is the best example of adulteration?
  - The product has been illegally transported across state lines.
  - The package bears a falle or misleading statement.
  - (c) The product has been handled so as to mislead the purchaser.
  - The product has been treated to reuder it (b) inferior.
- 2E The grading of meat is to the consumer as
  - a drivers license is to a car
  - (a) a seat belt is to a car oil is to a motor all of the above

  - In the past, many organizations produced similar products. However, when the consumer wished to substitute one product for a product which was produced by another company he found that products requiring connections (i.e. water line pipe, hose nozzles, light bulbs) could not be interchanged. nozzles, light bulbs) could n Today, this should not occur.
- 5. What is the nature of the problem described above?
- 2E 6. What has been done to help alleviate the problem?
- 7. Hypothesize action which would resclve the problem. 4E

## Topic: Operation of our Economic System

By: Kelly Parnell James A. Mundy, IV John Currie Kempsville H. S. Virginia Beach Roanoke Washington & Lee H. S. Westmoreland County

#### Instructional Objectives

- 1. The student knows the terms and general principles about distribution in a free economy whom he is able to:
  - 1.1 Name the four economic systems.
  - 1.2 Define each of the four basic economic systems.
  - 1.3 Define the concept of free enterprise.
  - 1.4 Define monopoly and laissez-faire.
  - 1.5 Name a country that operates under each of the four economic systems.
  - 1.6 Recall the components of an economic system.1.7 List the characteristics of each of the four economic
  - 1.7 List the characteristics of each of the four economic systems.
  - 1.8 List the individual's economic rights under each economic system.
- The student understands the general facts and principles of an economic system when he is able to:
  - 2.1 Give examples of the four basic economic systems.
  - 2.2 Demonstrate, by example, the difference between "laissez-faire" and "monopoly."
  - 2.3 Differentiate production, distribution, consumption,
  - and competition in the economic systems.
    2.4 Identify the economic rights of an individual in each economic system.
- The student applies and synthesizes information about the four economic systems when he is able to:
  - Role play a situation an individual might experience in an economic system.
  - 3.2 Predict the effect of the loss of conpetition on production, distribution, and consumption in each of the economic systems.
  - 3.3 Demonstrate a collective bargaining situation in each of the four economic systems.
  - 3.4 Develop an economic system using principles from the four basic systems.
  - 3.5 Determine the possible effect of laissez-faire practices
  - in each of the four economic systems.

    3.6 Illustrate the profit motive by using a company's annual report.
  - 3.7 Illustrate the relationship of competition to distribution.



- 4. The student analyzes and evaluates information about economic systems when he is able to:
  - Determine how international events are affected by economic principles.
  - Assess how economic systems are affected by international events.
  - 4.3 Defend the atatement - "freedom is the priceless ingredient in our economy."
  - Judge the validity of his employer's definition of the "free enterprise system."
  - Justify a free enterprise system.

    Justify legal monopolies. 4.5
  - 4.6 Determine current economic trends in each economic system. 4.7
  - 4.8 Compare the role of governmental control in each of the
  - economic systems.

    Evaluate the necessity of selected monopolies in our economic system.
- 5. The student demonstrates skill and ability in the use of information about economic systems when he is able to:
  - Prepare a report on "How Our Economic System Affects Me."
  - 5.2 Locate reference material on economic systems.
- - 6.1 Appreciates the importance of the profit motive in a
  - capitalistic society.

    Realizes the implications of initiative in a free enterprise system.
  - Exercises his economic rights in his daily life.
  - 6.4 Considers current economic problems objectively.
  - 6.5 Collects newspaper articles about different economic systems.

## Selected Content

- I. How our Economic System Operates
  - Meaning of an economic system

    1. Definition of the term

    a. Production

    b. Distribution

    c. Consumption

    - Characteristics of our capitalistic or free enterprise system
  - 1. Foundations of the system
    2. Modified versus laissez-faire capitalism
    The four economic systems defined
  - - 1. Capitalism
      2. Communism
      3. Socialism
      4. Fascism Capitalism
  - D. Comparison of the four systems
    E. Individual economic rights

-							
				Objectives			
	Content	1. Knowledge	1. 2. 4. Knowledge Understanding Application Analysis	3. Application	4. Analysis	5. Skills	6. Attitudes
<b>₹</b>	Economic System Definition and Kel:tionship		ત્ર	м	н		τ
ei G	Foundations of Free Enterprise	7	N	н	ĸ		₹*
ິ່	Laissez-faire vs. Monopoly	1	и	ч	м		
ė	Four Systems Defined	к		ч			
ĸi	Comparison of Four Systems	ო	81	н	9		۲
<b>P4</b> ·	Individual Economic Rights	7	п	αı	н		4
Į.	Total Questions	6	8	æ	15		10
	Percent of Questions	ns 18%	16%	16%	30%		20%



## Illustrative Test Items

Table of Specifications Reference

1D	1-4.	Mark the following statements: A for capitalism, B for communism, C for schillism, or D for fascism:
		1. Government controls production, exchange,
		and consumption.  2. Totalitarian rule by a single political
		party of government and society.
		3. Government ownership and social control of production and distribution.
		4. Private ownership of production and distribution.
1E	5-8.	Name a country that operates under each of the four economic systems.
		5. Capitalism
		6. Communism
		7. Socialism 8. Fascism
	_	
2A	9.	Economic voting is most effective in which of the following systems?
		A. Capitalism
		B. Communism C. Socialism
		D. Fascism
2B	10.	Social control is to socialism as free enterprise
		is to:
		A. Capitalism
		B. Communism
		C. Socialism
		D. Fascism
SC	11.	Which is the best reason for governmental fran-
		chising of a telephone company?
		A. more efficient service
		B. less competition
		C. better pricing D. less confusion
2F	12.	If a government can demand your property for indus-
-		trial use, you are living in which of the following economic systems?



- A. Capitalism B. Communism
- C. Socialism D. Fascism
- 13. Competing businesses can handle the shortage of a particular product by: 4A

  - A. raising prices
    B. eliminating the product
    C. lowering prices
    D. none of the above
- 14. If you are a citizen in a communist country, how would you defend non-competition? 4E
  - A. stabilized economy by price control
  - B. better service
    C. better product through standardized production
    D. all of the above
- 15. If you are a citizen in a communist country, how would you defend the lack of competition? 4E

  - A. stabilized economy by price control
    B. better service
    C. better product through standardized production
    D. all of the above

# Topic: Retail Advertising

By: E. R. Waugaman, II and W. Lee Bullard Woodbridge Sr. H. S. Prince William County Oscar Emith H. S. Chesapeake

#### Instructional Objectives

- The student knows specific terms and principles about retail advertising when he is able to:
  - Define advertising terminology.
  - Name the ultimate aim of retail advertising.
  - Recall the parts of an ad layout.
  - 1.4 Identify the three types of advertising media and the media that are included under each type. List at least four ways advertising helps consumers.

  - List newspaper advertising services. 1.6
  - Recall the development of the three types of media from 1.7
  - pre-printing to printing in the 20th Century.
  - 1.8 List the steps carried out in an advertisement (e.g. AIDA).
- The student understands general principles of advertising when he is able to:
  - Demonstrate by examples the three stages of advertising. 2.1
  - 2.2 Distinguish among the types of direct advertising. 2.3 Identify each of the seven parts of an ad layout.

  - Recognize an appeal to emotion in advertisements.
  - 2.5 Recognize poor uses of testimonials.
  - 2.6 Identify the protections against false advertising for the public.
  - Discriminate between branded and unbranded merchandise.
- The student applies principles learned to prepare and design layouts and other projects in advertising when he is able to:
  - 3.1 Make a script for a radio spot announcement.
  - 3.2 Construct a direct mail ad piece.
  - 3.3 Construct an ad layout.
  - 3.4 Design an original ad.
  - 3.5 Prepare copy from factual information about a product.3.6 Develop a plan which would involve sales personnel in
    - an advertising campaign.
- 4. The student will possess the ability to analyze and evaluate practical situations in retail advertising when he is able to:
  - 4.1 Detect the difference between promotional and institutional copy.
  - 4.2 Appraise the effectiveness of a simulated advertising program.



- 4.3 Evaluate an advertising plan for a large department store operation.
- Judge an ad.
- 5. The student will demonstrate skill in the production of an ad layout when he is able to:

  - 5.1 Select the appropriate elements for the layout.
    5.2 Arrange elements of the ad.
    5.3 Make written justructions to the media on final proof or draft.
- 6. The student shows interest in keeping abreast with latest trends and techniques of advertising and their application when he:
  - 6.1 Reads current periodicals relating to the advertising field.
  - 6.2 Makes attempts to apply knowledge and skills of advertising in on-the-job-training.
    6.3 Joins the distributive education club and participates
  - in promotional activities.

# Selected Content

- I. Why Study Advertising
  - A. Esfinition of advertising

  - B. Aims of advertising C. AIDA and advertising
- II. How Advertising Functions
  - Parts of an ad Use of appeals
    - J. Emotional
      - 2. Factual
        - Testimonial
  - Consumer protection in advertising
- III. Modern Advertising Media
  - A. Types and characteristics of media B. Selection of media

  - IV. Types of Advertising Copy
    - A. Promotional B. Institutional
  - V. Use of Brand Names and Slogans
    - Brand names
    - B. Unbranded merchandise
  - VI. Closing the Gap Between Advertising and Selling
    - A. How salespeople use advertising in their jobs B. Store organization for advertising
- VII. Advertising from Start to Finish
  - A. Practice in ad preparationB. Evaluation of results
- VIII. What Advertising Does for Us As Individuals
  - IX. Development of Advertising



				Objectives			
i	Content	l. Knowledge	2. 3. Understanding Application Analysis	3. Application	4. Analysis	5. Skills	6. Attitudes
<b>A</b> .	Why Study Advertising	81	1				
ë.	How Advertising Functions	1	ო		H		
o.	Media	ო	1				
Ġ.	Types of Advertising Copy			1	1		
Ä.	Brand Names and Slogans		Ø		<b>,</b> 4		
<b>6</b> 4	Closing Gap Between Advertising and Selling			1			
,	Advertising From Start to Finish	1		Ø	81	က	
₩.	What Advertising Does for Us as Individuals	N					
H.	Development of Advertising	м					
[	Total Questions	12	7	4	2	n	
	Percent of Questions	39%	22%	13%	16%	10%	

### Illustrative Test Items

### Table of Specifications Reference

- Which of the following is <u>not</u> included in the definition of advertising?

  - A. "personal presentation"
    B. "paid form"
    C. "presentation of ideas, goods, or services"
    D. "sponsor is identified"
- 2. The ultimate aim of advertising is to 1 A
  - A, introduce new products
  - B. stabilize sales volume
  - C. draw customers into establishment
  - D, sell merchandise or service
- 3. Which of the following is an example of periodical media? 2C
  - A. newspaper
  - B. magazine

  - C. catalogue
    D. both A and B
    E. both B and C
- 2C 4. Direct media is to calendars as mass media is to
  - A, tags

  - B. wrappers C. directories
  - D. sky writing
- 5. Which of the following services is/are typically 10 provided by a newspaper advertising department?
  - A, evaluation of results
  - B. mat service
  - C. illustrations
  - D. both A and E E, both B and C
- 6. Which of the following is not one of the ways 111 advertising helps the consumer?
  - A, helps form good buying habits
  - B. informs him about products and services C. saves him time and effort
  - D. causes him to make fewer purchases

4 14 1

2C	7. Which of the following is not an example of direct advertising?
	A. handbill under the windshield
	B. one minute TV commercial C. information tag on a department store dummy
	D. Sears-Roebuck catalogue
B	8. The familiar TV commercial concerning Camel filter cigarettes depicts an appeal to which of the following emotional needs of man?
	A. vanity
	B. ambition C. economy
	D. health
4D	<ol><li>Indicate whether the following examples are institutional or promotional.</li></ol>
	"The refreshing taste of Wrigley's
	Spearmint Gum gives you a refreshing lift"
	"Plenty of free parking for Sears
	customers" "Special sale of Arrow shirts - reduced
	20%"
2B	10. (Instructor will display a large sample ad with
	parts labeled with a key letter.) Below is a list of the parts of an ad. In the blank in front of
	each part insert the letter of that part shown on the sample ad. All blanks do not need to be filled.
	the sample ad. All blanks do not need to be illied.
	signature cut headline
	guarantee
	copy mat
	illustration
	white space milline
4B	11. Which of the following is the poorest example of
.2	the use of a testimonial?
	A. Johnny Unitas endorsing Spaulding footballs
	B. Johnny Unitas endorsing Chrysler C. Johnny Unitas endorsing Winston Cigarettes
	D. Johnny Unitas endorsing Baby Ruth candy bars

4E	12.	Identify the examples of merchandise shown to you as to whether they are branded or unbranded.
		Example A Example B Example C Example D
4G	13.	Sam's Boutique on Main Street is having a summer clearance. Check the medium which would be appropriate for them to use.
		A. Better Homes and Garden Magazine B. Playboy Magazine C. network TV D. billboard E. local newspaper F. directories
4G	14.	(Distribute ad layout rating sheet with test. Show sample ad.)
		Evaluate the ad shown to you using the DECA rating sheet.

## Topic: Stockkeeping on the Selling Floor

By: Danny C. McDaniel Parry McCluer H. S. Buena Vista John C. Pence and James Wood H. S. Frederick County

### Instructional Objectives

- The student knows specific terms and general principles about stockkeeping on the selling floor when he is able to:
  - Define terms about stockkeeping.
  - 1.2 List six advantages realized by the salesperson through proper stockkeeping.
  - List three advantages realized by the customer through proper stockkeeping.

    1.4 List six advantages realized by business organization
  - through proper stockkeeping.

  - 1.5 Identify the people who are responsible for stockwork.1.6 List four of the five major facilitating store functions.
  - List three steps for transferring merchandise into the 1.7 department.
  - Recall the dates that are necessary for proper stockkeeping.
  - 1.9 Recall the dates when physical inventories are taken.
  - 1.10 List four physical requirements of a good stockkeeper.
    1.11 List two mental and two physical abilities necessary for good stockkeeping.
- The student understands general facts and principles about stockkeeping on the selling floor when he is able to:
  - Interpret the statement, "stock well-kept is half sold."
  - 2.2 Differentiate between wholesale and service stockkeeping
  - practices.
    2.3 Describe the location of forward and reserve stock.
  - Determine times when stockkeeping should be done.
  - 2.5 Chronologically order the steps the buyer takes in buying merchandise.
  - 2.6 Differentiate between basic stock, seasonal stock, or promotional stock.
  - 2.7 Explain the necessity of straightening, filling in, and following a stock control system.
  - 2.8 Differentiate what is proper and improper in the care and storage of display fixtures, point-of-sale signs and displays.

  - 2.9 Identify old merchandise.
    2.10 Describe ways old merchandise can be displayed prominently in order to be sold.
- 3. The student applies and synthesizes information about stockkeeping on the selling floor when he is able to:

- 3.1 Design a store floor plan showing good stockkeeping practices.
- 3.2 Design a store floor plan showing poor stockkeeping
- practices. Design an open display to demonstrate good stockkeeping practices.
- 3.4 Suggest methods of stockkeeping which are more economical than those currently used by a distributive business.
  3.5 Develop methods or procedures in handling stock.
- 4. The student has the ability to analyze, and evaluate data about stockkeeping on the selling floor when he is able to:
  - Recognize the elements of good stockkeeping.
  - Compare stockkeeping procedure used in his training station with the procedures followed in the unit of study.
  - Use Rating Sheet ST III to evaluate his performance in 4.3 scockkeeping procedures.
  - Determine the arrangement of merchandise using style, size, color, and material.
  - Evaluate a code of ethics in stockkeeping.
  - 4.6 Evaluate stockkeeping practices in an open display.
- 5. The student will demonstrate skills about stockkeeping on the selling floor when he is able to:
  - Use the principles of stock placement and arrangement to replenish an assortment of counter stock from the under stock and reserve stock.
  - 5.2 Construct an open display which demonstrates good stockkeeping practices.
  - Arrange merchandise according to one of the following:
  - type, style, price, color, size.
    Conduct a physical inventory of 20 items with no more than one error using Inventory Sheet, ST-V.
- 6. The student will have proper attitudes about stockkeeping on the selling floor when he:
  - Appreciates the importance of proper stockkeeping. Strives to meet the requirements of a good stockkeeper.
  - 6.3 Realizes the importance of learning information about stock.



### Selected Content

- Why Do Stock Work Ι.
  - Importance of stockkeeping
  - Advantages of proper stockkeeping on the selling floor
    - Facts to know about stockkeeping
  - Stockkeeping as a facilitating activity
- II. How Stock Gets into the Store
  - Main steps in getting merchandise into the department
    - 1. Buying Receiving 2.

    - Storing
  - Steps a buyer takes in buying merchandise Contacts vendor

    - Selects merchandise
    - 3. Financing Places the order
  - Procedure in receiving, checking, and marking merchandise
  - Procedure in storing merchandise
- Stock Care
  - Importance of stock care
  - Getting out and putting away stock В.
  - Cleaning and dusting stock Checking conditions of merchandise
    - Keeping stock and department in good shape
- Straightening and Controlling of Stock IV.
  - Importance and meaning of terms
  - Duties in straightening stock
  - Filling in stock
  - Following stock control system
  - V. Taking Physical Inventory
    - Physical inventory as a method of stock control
      - Physical inventory Book inventory

    - Facts about physical inventory Steps in taking physical inventory

      - Plans are made Inventory is taken by salespecple Inventory is calculated
    - Practice demonstrations
- VI. Care of Fixtures, Signs, and Displays



- A. Care of storage and display fixtures
  B. Care of point-of-sale signs and displays

# VII. Learning Stock Information

- A. Meaning of term, stock information B. Learning what is carried C. Learning amounts available

- D. Learning cl:ssifications of merchandise or department E. Learning location of specific items

# VIII. Qualifications of a Good Stockkeeper

- Physical requirements
- Mental abilities В.
- Personal traits
- Special abilities D.

# IX. Developing the Professional Touch

- The importance of the professional touch in stockkeeping
- Ways of saving time and effort in stockkeeping Ways of saving expense in stockkeeping Precautions to observe in stockkeeping В.
- X. Stockkeeping as a Facilitating Activity
  - Introduction
  - B. Review unit



	-			Objectives			
	Content	l. Knowledge	2. 3. 4. Understanding Application Analysis	3. Application	4. Analysis	5. Skills	6. Attitudes
¥.	Why Do Stock Work	9	4	n	-	8	-
ä	How Stock Gets into the Store	٦	1		۲		
ပ်	Stock Care	н		1	1	1	
à	Straightening and Control of Stock	81	м				
ii.	Taking Physical Inventory	84				1	જ
	Care of Fixtures, Signs and Display					1	
ن	Learning Stock Information	٦			7		
Ħ	Qualifications of a Good Stockkeeper	81					
<del>.</del>	Developing the Professional Touch	~		ĸ	1		
<b>5</b>	Stockkeeping as a Facilitating Activity	tγ					
ļ	Total Questions	16	6	4	5	2	ო
	Percent of Questions	38%	21%	10%	12%	199	7م

# Illustrative Test Items

Table of Specifications Reference

	1-7.	Matching	
1A	1.	Stockkeeping	A. Keeping merchandise clean and saleable
1A	2.	Facilitating Activity	B. Count of merchandise
1C		Stock Care	C. Dexterity, speed, strength and height
1E	4.	Physical Inventory	D. Perception and imagination
1D	5.	Merchandise Classification	E. Arrangement of merchandise.
14	6.	Stock	F. Keeping merchandise in saleable condition
1E	7.	Book Inventory	G. Closely related to and increases the effec- tiveness of other store functions
			H. Merchandise on hand
2A	8.	In your own words, "Stock well kept is	Interpret the statement, half sold."
41	9.		eping procedures used in on with those we discussed
1.4	10.	in his work is the	f the salesperson's interest enthusiasm he shows in the
4G	11.	Discuss the role of ciple of having mer	stockkeeping on the prin- chandise:
		(a) In the right qui (b) At the right pla (c) At the right time	ice
1D	12.	Only bulky or fast-probably need additionable.	selling merchandise will ional



- 3C 13. Suggest ways of identifying old merchandise and suggest ways old merchandise can be displayed in order to sell it first.
- 2D 14. Differentiate between wholesale and service stockkeeping.

### Topic: Job Interview

By: Charles W. Tomlin Hugh E Brown and George Washington H. S. Patrick Henry H. S.

Alexandria Roanoke

#### Instructional Objectives

- The student knows the specific terms and general principles about the job interview when he is able to:
  - Recall information needed on a complete application form.
  - Identify rules for completion of the application form. List rules for completion of the application form.
  - 1.3
  - List desirable posture, actions, and mannerisms in a job interview.
  - Recall questions that are most frequently asked by interviewers.
  - Recall how to greet a receptionist in a waiting room.
  - Recognize proper decorum in a waiting room.
  - 1.8 Recall the use of the job application form.
- The student understands general facts and principles in the conduct of job interview when he is able to:
  - 2.1 Recognize the proper procedures to complete the application form.
    - Explain the importance of the application form.
  - 2.3
  - Differentiate between a good and a bad interview.

    Identify the best mannerisms and speech to employ in an 2.4 interview.
  - 2.5 Identify reasons for being courteous to the receptionist.
  - Recognize proper attire in a job interview. 2.6
- 3. The student applies and synthesizes information necessary to secure employment when he is able to:
  - Correctly complete an application form.
  - Greet the receptionist properly. 3.2
  - 3.3 Complete a successful interview.
  - Demonstrate the ability to use acceptable job interview techniques by role playing in class. Prepare job application forms. 3.4
- The student can analyze and evaluate job applications and interview procedures when he is able to:
  - Recognize a properly completed application form.
  - Evaluate an interview using a rating sheet.
  - 4.3 Differentiate between good and bad interview practices.



- 5. The student demonstrates skill and ability in the use of the techniques of the job interview when he is able to:

  - 5.1 Establish rapport with an interviewer.
    5.2 Demonstrate ability to communicate with interviewer.
    5.3 Appear "at ease" with the interviewer.
- The student displays a favorable attitude and interest in the acceptable techniques of job interview procedures when

  - 6.1 Appears early for each job interview.6.2 Follows coordinator's suggestions for improvement.

# Selected Content

- I. Preparation for the Job Interview
  - Information needed

  - B. Application forms
    C. Rules to follow when completing the application blank
    D. Role-playing
- II. Applying for the Job
  - Dress
  - В. Mannerisms

  - C. Greeting receptionist
    D. Demonstrations and student judgings
    E. On-the-job practice



		Table of Specifications	fications			
			Objectives			
Content	l. Knowledge	2. 4. 5. 6. Understanding Application Analysis Skills Attitudes	3. Application	4. Analysis	5. Skills	6. Attitudes
A. Dress	ო	ч		Ħ		
Application	81	n	М	H		
Greeting Receptionist	-	н	п	Ħ		
D. Interview	'n	4	м	81		
Total Questions	11	6	v	'n		
Percent of Questions 36%	36%	30%	17%	17%		

# Illustrative Test Items

# Table of Specifications Reference

- 1. Which of the following is considered proper dress for a boy in the interview situation?
  - A. loud sports coat
  - B. madras pants
  - C. dark colored tie
  - D. blue suede shoes
- 2. Which of the following is considered proper dress for a girl in the interview situation? 1A
  - A. one-piece dress
  - B. long, dangling beads C. heavy, eye make-up D. mini-skirt
- One of the following is not a rule to follow when filling in an application form: 18
  - A. print or write in pencil
  - B. answer all questions
  - C. answer questions correctly
  - D. make no marks on application blank except where directed
- 4. Which of the following should you bring with you 18 on a card to help fill in the application form?

  - A. family names and history
    B. spellings of unfamiliar words
  - C. medical history
  - D. references, names, and phone numbers and occupation
- The most important thing an employer can tell about you from your application form is: 2B
  - A. how honest you are
  - B, how quickly you work
  - C. how well you follow directions
  - D. all of the above
- 6. While in the waiting room you could: 10
  - A. smoke
  - B. chat with other prospective interviewees C. talk to secretary D. chew gum



- 1D 7. The interviewer may ask you which of the following questions?

  - A. your name B. your address
  - C. your telephone number
  - D. your reason for leaving your last job
- 2A 8. What manner of dress would be appropriate when applying for the job of salesman?
  - A. plaid jacket, sandals, striped tie B. white shirt, dark coat, wing-tips

  - C. sneakers, levis, cut-offs
    D. paisley slacks, loafers, striped shirt
- 2B 9. For a good impression the interviewee should be careful to:
  - A. not smudge the paper
  - B. fill in all blanks
  - C. write or print neatly D. be concise E. all of the above
- 2C 10. You should watch your treatment of the receptionist because:
  - A. she is the first to see you

  - B. she handles your application C. she may be consulted by interviewer
  - D. all of the above
- 10 11. Which of the following is the best way to initiate the interview?
  - A. shake the man's hand

  - B. sit in a chair immediately C. ask the interviewer his name
  - D. none of the above
- The pupil will be given a sample application form and will be asked to complete it. 3B
- 3C 13. The pupil will role-play how to greet a secretar,
- 3D 14. By role-playing, the student will portray his ability to successfully complete a job interview.
- **4B** 15. Given a completed job application form, the student will find and report all errors.
- 4D 16. Given a rating sheet, the student will observe and rate a mock interview.



# Topic: Retail Arithmetic

Leonard Rose and Bv: James White Covington H. S. George Washington H. S. Covington Alexandria

### Instructional Objectives

- The student knows the specific terms and general principles of retail arithmetic when he is able to:
  - 1.1 Name and define the four fundamental arithmetic
  - operations. 1.2 Recognize or distinguish the relationships between the fundamental processes.

  - 1.3 Identify gross salary, deductions, and net pay.
    1.4 Recognize which math process to use.
    1.5 Name and define the most common units of weights and measures used in retailing.

    1.6 List steps to follow in making change.

    1.7 Recall the fraction and decimal to use for a percentage.

  - 1.7 Recognize quantitive meanings in diagrams, graphs, and
  - Define profit motive and tell how to determine profit.
  - 1.10 Differentiate between markup and markdown.
- The student understands general facts and principles of retail arithmetic when he is able to:
  - Translate mathematical symbols into verbal material.
  - Differentiate between subtrahends and minuends.
  - Recognize number combinations whose sur is ten, and demonstrate the use of number combinations when adding long columns of numbers. 2.3
  - 2.4 Recognize that the accuracy of subtraction can be checked by adding the subrahend and the difference to obtain the minuend.
  - Distinguish between cost price and retail price.
- 3. The student applies knowledge and skills of specific facts and principles in the use of the four arithmetic operations when he is able to:
  - Solve simple problems using each basic operation.

  - Operate the cash register.
    Compute gross pay and "take home" pay.
    Complete a sales check for cash sale and a credit sale. 3.3
  - Calculate weight and measure problems by determining the amount needed for a customer and by figuring the cost of multiple units.
  - 3.6 Operate a cash register at a specified rate.

- 3.7 Complete a pie chart showing how the retail dollar is spent by the retailer.
- 3.8 Compute an inventory value using an adding machine.
- 3.9 Correct math papers of other students.
- 3.10 Compute sales tax.
- 3.11 Predict the selling price from cost and markup. 3.12 Prepare profit and loss statements.
- The student will possess the ability to analyze and evaluate situations in retail arithmetic when he is able to:
  - Infer that markdowns add to the cost of doing business.
  - Infer that high stock turn increases profit.
  - 4.3 Detect that the aim of all stores is to sell merchan-
  - dise that customers want at a price they wish to pay.
    Assess the applicability of using multiplication as a 4.4 short cut to addition.
  - 4.5 Evaluate the desirability of using markdowns as a method of moving goods.
  - Select the way which best shows profit or loss.
  - 4.7 Analyze a profit and loss statement.
    4.8 Determine ways to increase profit.
- The student will demonstrate skill in retail arithmetic when he is able to:
  - 5.1 Ring up thirty-five items on the cash register without error in a specified time.
  - Use fractions instead of percentages or decimals in figuring discounts, markdowns or markups.

  - Demonstrate the ability to estimate answers.
    Use weight and measure devices to determine the amount 5.4 of goods and total price.
- The student will have proper attitudes about retail arithmetic when he:
  - Demonstrates a critical attitude toward public statements regarding profits.
  - 6.2 Exhibits an open mind in discussing profit.6.3 Uses class time wisely.



# Selected Content

- I. Importance of Arithmetic in Store Selling
- II. Addition and Subtraction
- III. Multiplication and Division
- IV. Fractions and Decimals
- V. Percentages
- VI. Pricing Merchandise
- VII. Figuring Markdowns and Discounts
- VIII. Figuring Stock Sums
  - IX. Profit and Loss



Table of Specifications

	Content	1. Knowledge	2. 4. Understanding Application Analysis	3, Application	4. Analysis	5. Skills	6. Attitudes
÷	Importance of Arithmetic in Store Selling	٦	1	ı		8	
ä.	Addition and Subtraction	84	8	8			
ပ	Multiplication and Division	8			ч		
ų.	Fractions and Decimals	81	٦				
Ä.	Percentages	81		Ħ		8	-
p.	Pricing Merchandise	ო	٦	1	1	-	
ö	Figuring Markdowns and Discounts	ო	*		N		51
н.	Figuring Stock Items	81			7		7
I.	Profit and Loss	ო		Ħ			۵
ł	Total Questions	50	9	9	က	īO	9
	Percent of Questions	42%	12%	12%	11%	11%	12%

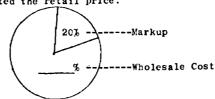


### Illustrative Test Items

Table of Specifications Reference

3 F

1. Fill in the Pie Chart to show what the wholesale percentage of an item would be if the entire pie represented the retail price.



- 2. Fifteen percent expressed as a decimal is: **2**D
  - A. .015 B. .0015 C. .15 D. 1.50
- 2B 3. In the following problem, the minuend is:

-76 163

- A. 239 B. 76 C. 163
- D, none of the above
- 4. By combining each number combination whose sum is ten, and counting these as single numbers, how many numbers will you need to add to come up with the answer to the following problem: 3B

5. Subtraction can be checked by adding the subtrahend and the difference to obtain the minuend. The minuend in the following problem is:

A. 9

2B

- B. 71 C. 1240
- D. none of the above
- 2F 6. In your own words, distinguish between cost price and selling price.
- **4**G 7. Which of the following situations helps to bear out the inference that markdowns add to the cost of doing business?
  - A. Jones' Pen Company decided to up the price of its pens because they are not selling well.

    B. Bill's Cap Company decided to cut back on the
    - production of caps because of increased consumer demand.
  - C. Jim's Golf Ball Company decided to reduce the price of golf balls to reduce its overstocked inventory,
- 4C 40 items at 45¢ each 40 items at 50¢ each 40 items at 55¢ each 8-10. You sold the following:

Three people were asked to compute the total price of the above items:

- (1) Bill added 40 items at 45¢ each, 40 items at 50¢ each, and 40 items at 55¢ each, and arrived at a total;
- (2) Joe multiplied 40 by 45¢, 40 by 50¢, and 40 by 55¢, and added the three totals tugether;
- (3) Sally multiplied 120 by 50 and said that was the total price,
- 8. Which of the above student(s) arrived at the correct answer?
- 9. Which of the above students computed the answer in the most efficient (and correct) manner?
- 10. Which method was least efficient to compute?



11. Joe's sporting goods store sells one cance a year. The cance sells for \$100, and Joe's profit is \$20. Which of the following methods of reporting Joe's profit on cances would most accurately describe Joe's cance business to a prospective buyer of his store? 4 I

A. Joe makes \$20 a year on canoes. B. Joe makes 20% profit on canoes. C. Both A. and B.



#### CHAPTER V

### SUMMARY

The original purpose of this study was to improve the evaluation proficiencies of high school distributive education teachers in the state of Virginia. The implementation of the purpose was to be through the medium of a conference for selected participants.

During the conference, participants received instruction in the preparation of evaluation units for the distributive education program. Participants constructed evaluation units in areas of their preference after having received instruction on this subject. An evaluation unit consisted of the following: educational objectives, stated behaviorally; a subject matter outline; a table of specifications; and test items written at various levels of cognition.

Included in the overall study was the provision for an evaluation of the success of a conference of this type. The original plan for experimental and control groups was thwarted because of a lack of available participants. Therefore, the evaluation plan was altered.

Basically, the evaluation of the success of the conference was based on three sources of data:

- A comparison between pre-test and post-test cognitive abilities in principles of evaluation as determined by the difference in pre- and post-test scores on a test of educational evaluation. The purpose of this was to determine whether or not the cognitive abilities of the participants were raised as a result of their conference participation.
- 2. An investigation of the degree to which participants implemented their newly-acquired ability in principles of evaluation in their actual school settings. This was measured by comparing the tests of participants prior to the conference with their tests constructed after the conference.
- 3. The construction of evaluation units in selected areas of the distributive education program.

Results of the conference were favorable for all three of the above criteria. With respect to the first two criteria, cognitive abilities and implementation of newly-acquired ability in evaluation, the participants showed statistically significant



59

improvement after they had received instruction regarding evaluation. On the latter criteria, evaluation units, it was the judgment of the researchers that the participants had successfully constructed appropriate units according to the framework in which instruction was given and to the subject content of the distributive education program.

Based upon the findings of this study, it is recommended that conferences of this type be viewed as worthwhile ventures for the various vocational education service areas to undertake in order to improve the evaluation abilities of teachers in their respective fields.

#### APPENDIX A

### Measurement Test

- Instructions to the student:

  1. Select the alternative which represents the Best
  - Answer Mark the letter of the alternative on the answer sheet.
  - Answer all questions; there is no penalty for guessing.
  - Do not mark on the test booklet.
- What is the major argument for using unstructured essay exercises in tests given during instruction?
  - Unstructured exercises insure that students attack the same problems.
  - Teacher insights with reference to student thought
  - patterns and attitudes are promoted.
    C. Course marks are more valid measures of student ability.
  - D. Such exercises best stimulate students to write wellorganized essay answers.
- How reliably can answers to essay questions be evaluated?

  - It is impossible to evaluate them reliably enough to justify the use of this form.
    Under certain conditions they can be evaluated reliably, but the process is likely to be difficult and costly.
    They can be evaluated reliably with great ease if certain
  - simple precautions are observed.
  - They are ordinarily evaluated with as much reliability as are objective tests.
- 3. Which of the following types of items is well adapted to evaluating student knowledge of numerous technical terms?
  - True-false.
  - В. Multiple-choice,
  - Matching.
  - Analogy.
- The term objective, when used to label an educational test, describes
  - a characteristic of the scoring process.

  - B. a typographic feature of the test.
    C. the degree of standardization of the test.
    D. the content limitations of the questions.



61

- 5. Sue answered correctly 25 out of 50 items on an arithmetic test. What interpretation can be made of Sue's performance on the test?
  - Sue placed at the 50th percentile.

  - Sue needs remedial work in arithmetic. Sue knows about one-half of the material in arithmetic c. taught in her grade,
    - No interpretation of the score is possible on the basis of the information given.
- 6. Problems arise in attempting to develop measures of ultimate goals mainly because
  - A. measurement methods have not given proper weight to all goals,
  - teachers have been reluctant to depart from traditional testing methods.
  - C. group norms with which to compare results are not available.
  - such goals concern behavior not usually observable under classroom conditions.
- "Washington, D.C., is the most important city in the United States." Why is this a poor true-false item?
  - A. It is ambiguous. B. It is too easy.

  - C. It is too brief. It is too factual.
- "Philadelphia was the capitol and largest city in the United States for a number of years." Why is this a poor truefalse item?
  - It is ambiguous.
  - It involves more than one idea.
    It does not have a good answer.

  - D. It is too long.
- 9. "In the United States, are elected for \_\_\_." What would be the best way to revise
  - A. Replace the first blank by "senators" and the third blank by "representatives".B. Insert the word "years" after the second and fourth
  - blanks.
  - Insert the work "all" before the first and third blanks.
  - D. Make changes A. and B.



- 10. At the end of the semester a history teacher gave his pupils an essay test on the material covered during the preceding weeks. When he graded the papers he deducted points from the total score for spelling, grammar and English usage. In so doing, he
  - increased the accuracy of his final grades. increased the objectivity of measurement.
  - C. lowered the reliability of the test.
    D. lowered the validity of the test.
- Objective test exercises are most likely to measure the ability of the pupils to reason if the exercises
  - A. are of the recall rather than of the recognition type.
  - B. are similar in form to intelligence test exercises.C. are of the multiple-answer rather than the true-false
  - type.
  - D. require application of facts to a novel situation or problem.
- 12. The use of the normal curve as a basis for assigning school marks is most legitimate when
  - a standardized test is used.
  - all of the pupils have approximately the same i.Q.
  - the marks are to be assigned to a large and represen-C. tative group of pupils.
  - the average pupil scores 85 on the test used.
- The most important advantage of the objective test over the essay test is that it

  - A. saves time for the teacher.
    b. has higher content validity.
    C. measures a greater range of instructional objectives.
    b. provides for a more complete sampling of content.
- 14. In the scoring of essay examinations, all the following are generally considered desirable practices except to
  - reduce the mark for poor spelling or penmanship. prepars a scoring key and standards in advance.

  - remove or cover pupils' names from the papers.
    score one question on all papers before going to the
  - next.
- "Columbus discovered America in " The best change to make in revising this Item would be to rewrite it so as to read
  - "America was discovered by Columbus in \_\_\_
  - "Columbus discovered in the year of

  - was discovered by Columbus in

- 16. In which way are teacher-made tests superior to standardized tests?
  - They are more reliable for evaluating differences among
  - very poor and very good students.
    They provide more valid measures of the teacher's specific objectives.
  - They provide more valid measures of the student's grasp of important facts and principles.

    They are simpler to administer and score.
- Measurement specialists would generally consider the practice of allowing a choice in the questions to be answered on an essay examination
  - desirable, because it gives each student a fairer chance.
    - desirable, because it permits a wider sampling of the topics covered.
  - undesirable, because it reduces the comparability of the
  - test from student to student.
    undesirable, because students waste too much time deciding which question to answer.
- A science teacher is preparing a test to be used to determine knowledge of specifics from a unit of study. He should use objective rather than essay questions because they
  - avoid ambiguity, the most common fault of test questions. Provide a wider sampling of material. are not affected by the judgment of the tester. are best suited to his purpose.
- 19. One of the merits of arranging test items in an order of difficulty is that
  - it insures an accurate measure of consistency.
  - it encourages the pupil taking the test to continue.
    item validity is to some extent dependent on difficulty.
  - this procedure contributes to the test's reliability.
- 20. Which of the following statements is most true for tests that are used in the educational setting?
  - They are about as accurate as measurements obtained in the physical sciences.
  - One test question requires as much knowledge to answer as any other test question.
  - They can give a fair indication of how one student stands in relation to another student.
  - D. They are practically worthless.



- An educational goal is "being a good consumer," Which of these illustrations best expresses this goal in terms of behavior?
  - To get good value for one's money.

To be prudent in handling money.

- To purchase items by comparing weight and volume. To act in accord with economic principles.
- 22. 25. An objective of a history teacher is "that the students understand the Civil War." While this objective is poorly
  - Mark A for the items that are appropriate for measuring "understanding the Civil War" and B for the items that are not appropriate.
- Name 5 Generals in the Confederate Army.
- 23. Who's point of view would Barry Goldwater have espoused?
- 24. North is to South as Lincoln is to
- Match the following five battles with the year in which they 25. occurred.
- 26. Suppose you are the high school teacher of a sophomore English class and, as a part of your course objectives, you had the students w. ite a one-act play. You would be most interested in the students' ability to \_\_\_\_\_ the material to which they had been exposed.
  - A. Comprehend.
  - В. Translate.
  - Synthesize. C. Evaluate.
  - Defining educational objectives in terms of behavior that one would accept as evidence that the objective is being attained is necessary because:
    - It forces teachers and administrators to thoroughly define what their objectives are.
    - It eliminates semantic confusion by those who are attempting to utilize the objectives.
    - C. Both A. and B. D. Neither A. nor B.

- 28. Students in a seventh grade social studies class are asked to translate "E Pluribus Unum" and tell what it means. The teacher is testing the students' ability to the material to which they have been exposed.
  - Know.
  - В. Apply. Comprehend. С.
  - Evaluate. D.
- 29. Education objectives might best be formulated using operational definitions (those which are observable). The best example of an operational definition of "thirst" would be:

  - A. Dryness in the mouth.
    B. A need for a drink.
    C. Going without water.
    D. Going without water for 12 hours.
- 30. 35. Listed below are statements of instructional objectives. On the answer sheet, mark:
  - If the statement identifies the behavior to be demon-
  - strated by the student.
    If the statement indicates a standard of acceptable performance.
  - If the statement does both A. and B.
  - If the statement does neither A. nor B.
- 30. To know well the Gettysburg Address.
- 31. To teach the current production of the  $\underline{s}$  sound.
- To write the names of important historical persons under their pictures.
- To influence art teachers to utilize the services of the visual aids department.
- To correctly identify eighteen of twenty conic section equations.
- To copy a list of twenty words and change them from singular 35. to plural form.
- 36. Using Bloom's method of classifying educational goals, how would you classify question 29?
  - Knowledge.
  - B. Application.
  - Comprehension. Ç.
  - Synthesis.



- As a motivating factor to encourage our students, it might be wise to include items in a test with an item difficulty index of
  - .85
  - .50 В.
  - C. .15
- If you want your test to have content validity, it would probably be best to give which of the following types of tests?
  - multiple choice
  - B. short answer
  - essay
  - either A. or B.
- 39. Which procedure would probably be the best teaching strategy?
  - Grade tests in class after all students have taken the test.
  - Return test papers the day after the test with all errors corrected.
  - Discuss the questions on a test with a class the day after the test.
  - Let the students know, in advance of a test, that the marks will not count as part of the final grade in the
- 40. True-false is to select as Essay is to
  - objective.
  - subjective.
  - supply.
  - valid.
- 41. Suppose you are a third grade arithmetic teacher and wished students to be proficient at working problems on making change for purchases. What kind of test questions would probably best measure whether or not the student has reached the objective?
  - Essay
  - Short answer В.
  - C. Multiple choice
  - True-false
- Scoring of which of the following tests is likely to be least objective?
  - True-false
  - Multiple choice

  - Matching Completion

- 43. The "matching" type of test item is

  - A. difficult to score validly.
    B. more objective than the multiple choice item.
    C. less objective than the completion item.
    D. a variation of the multiple choice item.
- In a test item such as: The general in command of all allied forces invading France in World War II was: (a) Eisenhower, (b) MacArthur, (c) Montgomery, (d) Washington. What would be the best change to make in this item?
  - Write the Etem as a question.
  - B. Rewrite it as a completion item. C. Replace "Washington" with "Patton".
  - Give each general's first name.
- Which of the following is not an advantage that an objective test has over an essay test?
  - Economy of scoring.
- Less time is needed to construct the test.

  Test results can be made available to the students more
  - rapidly. More adequate content sampling.

c.

- 46. Which of the following scores would be most meaningful with-out further information about the group that took the test?

  - A. 23 items correct in an English test of 40 items.

    B. 35 words per minute in a typing test.

    C. 30 items wrong in an algebra test of 50 items. Omitted 10 items in each of the English and algebra tests.
- 47. A raw score of 72 on a test means

  - the student got 72 correct out of 100 items. the student passed the test with a "D". 72% of the students scored below this student.
  - the student got a score of 72.
- 48. In which of the following justances is a teacher most justified in requiring all students to make test scores of 75 percent or better?
  - The class is composed of above average students.

  - The questions are essay rather than objective. The questions measure knowledge of essentials. The pupils have had ample time to prepare for the test.

- 49. 52. Which "specific determiner" does each of the following multiple choice questions most obviously violate?
  - Overlapping items determiner.
  - В. Opposites determiner. Technical terminology determiner.
  - Synonomous distractors determiner.
- the average score. Α.

The mean of a test is

49.

- В. the score that appears most frequently.
  - equal to the sum of the squares. called homoscedasticity.
- 50. The average of test scores (1, 2, 3, 4, 5, 6, 7, 8, 9, 10) is
  - less than 9.
  - В. less than 8.
  - less than 7. less than 6.
- 51. John Kennedy was
  - a president of the U.S. not a president of the U.S.
  - В. a secretary of state.
  - attorney-general of the U. S.
- 52. Lyndon Johnson is
  - president of the U.S.
  - В. Secretary of State.
  - vice-president of the U.S.

47)

- the person who will become president if the current president dies.
- 53. 57. Consider each set of the following questions. is the better question, mark A on the answer sheet, is the better question, mark  $\overline{B}$  on the answer sheet.
- 53.
  - John Kennedy was John Kennedy was the 9th president of the U.S. the 20th president of the U.S. the 30th president of the U.S. the 35th president of the U.S.
- 54. True False question

  - Not one of the presidents of the United States was unworthy of the office.
    All of the presidents of the United States were worthy of the office.

55. True - False question

A. Earth is the most important planet in the solar system. B. Earth is one of the planets in the solar system.

A. E Pluribus Unum means B. E Pluribus Unum means

Matching 57.

> 1861 Civil War 2. 3. 1941 1917 World War l World War II General in World War II 4. Eisenhower

1941 1861 Civil War World War I World War II 1917

58. Consider the following scores: 20

19 19 19 18 15 15 15 15 15 14 13 12 10 10 10

Suppose you planned to give 10% A's, 20% B's, 40% C's, 20% D's, 10% F's. What score should represent the lowest B?

19 A. B. C. D. 18 15 Either 15 or 59. A third grade teacher has as an objective "that the student shall define the word tree." Which of the following test questions will best measure whether her students have reached the objective? Question 1) What does the word "tree" mear? Question 2) A woody plant generally over ien feet tall is Question 3) True or false: A tree is a woody plant that is generally over ten feet tall.

- Question 1.
- Question 2.
- Question 3.
- Both questions 1 and 2 measure the objective equally well.
- 60. Using Bloom's method of classifying education goals, how would you classify question 3 in the above test question 59?
  - Knowledge

  - Application Comprehension
  - Evaluation

#### APPENDIX B

## List of Participants

Mr. Hugh E. Brown Coordinator Patrick Henry High School 2102 Grandin Road, S.W. Roanoke, Va. 24015

Mr. W. Lee Bullard Coordinator Oscar Smith High School 2500 Rodgers Street Chesapeake, Va. 23324

Mr. John Currie Coordinator Washington and Lee High School Montross, Va. 22520

Mr. Danny C. McDaniel Coordinator Perry McCluer High School 2329 Chestnut Avenue Buena Vista, Va. 24416

Mrs. Elizabeth Moores Coordinator Thomas Edison High School 5801 Franconia Road Alexandria, Va. 22310

Mr. L. P. Moss, III Coordinator Chatham High School Chatham, Va. 24531

Mr. James A. Mundy, IV Coordinator Jefferson Senior High School 550 Campbell Avenue, S.W. Roanoke, Va. 24016 Mr. Kelly Parnell Coordinator Kempsville High School 574 Kempsville Road Va. Beach, Va. 23462

Mr. John C. Pence Coordinator James Wood High School 1313 Amherst Street Winchester, Va. 22601

Mr. Leonard J. Rose Coordinator Covington High School Covington, Va. 24426

Mr. Charles W. Tomlin Coordinator George Washington High School 1005 Mount Vernon Avenue Alexandria, Va. 22301

Mr. Alexander Walsh Coordinator Brentsville Dist. High School Nokesville, Va. 22123

Mr. E. R. Waugaman, II Coordinator Woodbridge Senior High School 1100 York Drive Woodbridge, Va. 22191

Mr. James White Coordinator George Washington High School 1005 Mount Vernon Avenue Alexandria, Va. 22301

Mr. Donald Williams Coordinator Holston High School Damascus, Va. 24236



# **BIBLIOGRAPHY**

- 1. Bloom, Benjamin S. "Learning for Mastery," Evaluation Comment, I, No. 2 (May, 1969).
- 2. Bloom, Benjamin S. Taxonomy of Educational Objectives, Handbook I: Cognitive Domain. New York. David McKay Co., Inc., 1956.
- O 3. Ebel, R. E. Measuring Educational Achievement. Englewood Cliffs, New Jersey: Prentice Hall, 1965.
- (A. Gronlund, Norman E. Measurement and Evaluation in Teaching. New York: The Macmillan Company, 1965.
- 5. Lindwall, C. M. <u>Measuring Pupil Achievement and Aptitude</u>. New York: Harcourt, Brace and World, 1967.
  - 6. Lucas, Stephen R. and Larry J. Weber. "Foolproofing Test Questions," <u>DE Today</u>, (June, 1970), 3-4.
  - Sanders, Norris M. <u>Classroom Questions</u>, What Kinds? New York: Harper and Row, 1986.
  - 8. Smith, G. Milton. A Simplified Guide to Statistics for Psychology and Education. 4th ed. New York: Holt, Rinehart and Winston, 1970.
- 9. Verduin, Jr., John R. Conceptual Models in Tracher Education,
  An Approach to Teaching and Learning. Washington, D.C.:
  The American Association of Colleges for Teacher Education, 1967.



78